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National Accounts income and  
expenditure.  
1926-1947







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DOMINION BUREAU OF STATISTICS

NATIONAL INCOME UNIT

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**NATIONAL ACCOUNTS**  
**INCOME AND EXPENDITURE**  
**1926 - 1947**

DEPT. OF  
POLITICAL ECONOMY

DEPARTMENT OF  
TRADE AND COMMERCE

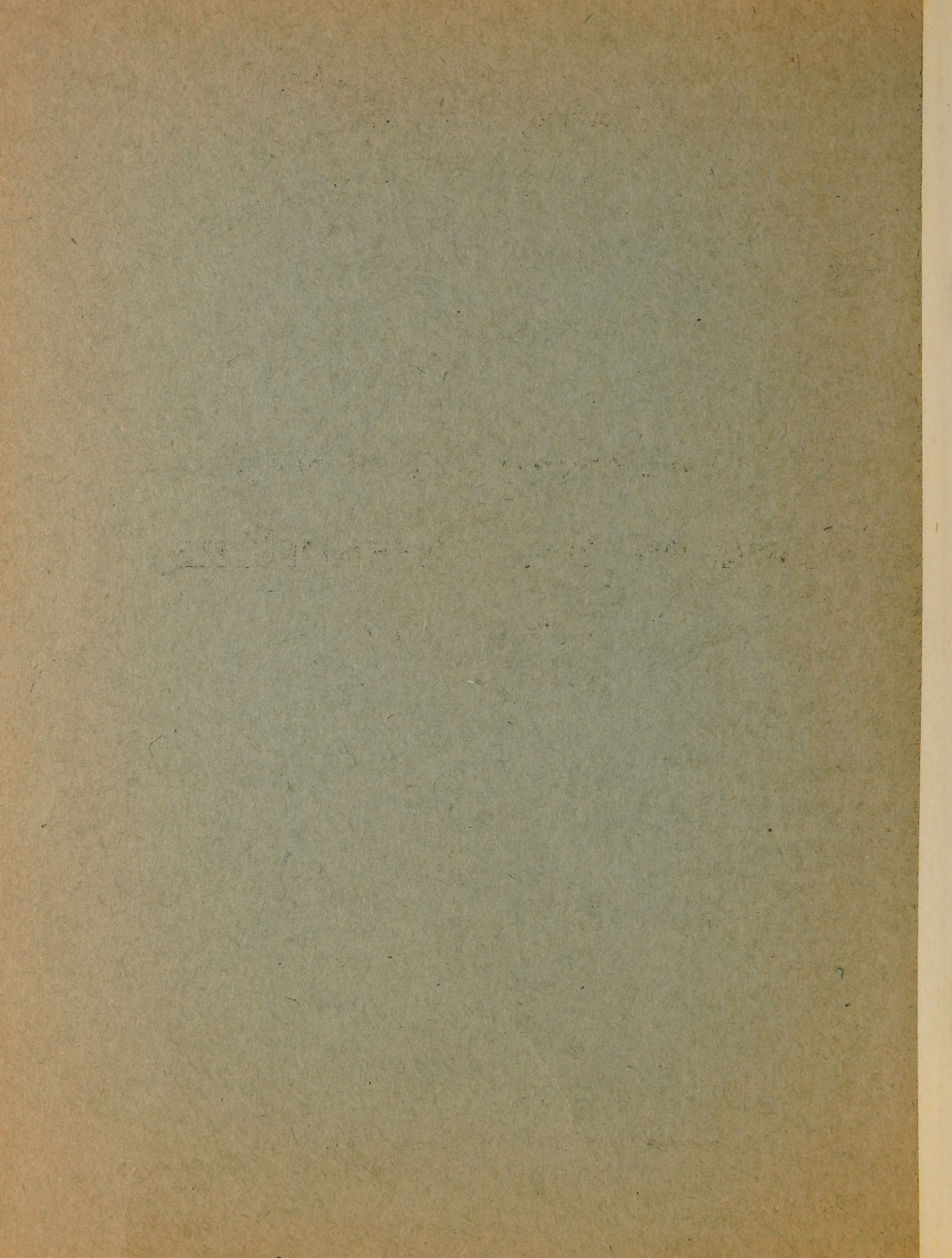


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## C A N A D A

### National Accounts, Income and Expenditure, 1926-1947

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This bulletin presents figures of national income, gross national product and expenditure, personal income and the disposition of personal income for the years 1926-1947. In addition, a table is given which shows separately net income of farm operators from current farm production, and that of other unincorporated business. For the first time balancing tables of income and expenditure for the years 1926-1937 are presented. The series for the years 1938-1947 have been revised in the light of the latest available information. A serious effort has been made to produce a consistent series for the whole period. However, the statistical sources are naturally more complete for recent years so that the estimates for earlier years suffer somewhat in comparison. New data are now being developed which will make it possible to improve the whole series. A brief description of the sources and methods used is included as an appendix to this bulletin. Reference should also be made to "National Accounts, Income and Expenditure, 1938-1945" (April 1946), for a description of concepts, methods and sources.

#### National Income and Gross National Product

The main totals in Table 1 (columns 5 and 9) measure the value of goods and services produced by the labour and capital of Canadian residents at different stages in the valuation of these goods and services. Net national income at factor cost, or more briefly, national income, measures the value of new production after deduction of allowances for depreciation of plant, equipment and housing; indirect taxes less subsidies are also excluded. For the economy as a whole this total equals the earnings of Canadian residents from production, that is, the sum of salaries, wages, profits, interest, net rents, and net income of agriculture and other unincorporated business. The gross national product measures the value of goods and services produced at market prices. Accordingly, this total is obtained by adding provision for depreciation, and indirect taxes less subsidies, to the national income.

In examining the series of gross national product and related aggregates it is essential to keep in mind that they measure price changes as well as changes in the real volume of production. Adequate price indexes of all goods and services included in the gross national product are not yet available. The cost-of-living index may be used, however, as a general guide in appraising the importance of the price element in the year to year changes of the gross national product. For example, the gross national product rose by approximately 13 per cent between 1946 and 1947, while the cost of living index rose by approximately 10 per cent during the same period. Between 1939 and 1940, on the other hand, the gross national product increased



by 21 per cent, while the cost-of-living index rose by only 4 per cent. Accordingly, it appears that the increase of gross national product between 1939 and 1940 reflects largely an increase in the volume of real goods and services, while the rise between 1946 and 1947 reflects, for the most part, price increases. A much larger increase in the real volume of production was possible in 1939 than in 1946 since more of the economic resources of Canada were unemployed at that time.

The gross national product reached a pre-war peak in the years 1928 and 1929, when it stood at \$5,985 million and \$5,956 million respectively. Thereafter it dropped steadily, falling to a low of \$3,468 million in 1933. The following year witnessed the beginning of economic recovery, and, apart from a slight recession in 1938, the gross national product moved steadily upward to \$5,598 million in 1939, the last pre-war year. The upward movement was greatly intensified during the war reaching \$11,887 million in 1944. It levelled off in 1945 and 1946 but in 1947 it rose to an all-time high of \$13,375 million.

### Gross National Expenditure

As indicated above, one way of measuring the market value of goods and services produced by Canadian residents is to add together all earnings (factor costs) arising in the course of production, depreciation allowances and similar business costs, and indirect taxes less subsidies. Another way of measuring these goods and services is to add together all final sales and to adjust them for imports and changes in inventories. The total thus obtained is called gross national expenditure. Its components indicate the manner in which annual output is absorbed. In 1928, spending by persons on consumer goods and services absorbed approximately 70 per cent of the output while government expenditure on goods and services accounted for about 10 per cent, and investment in Canada in plant, equipment, housing and inventories for about 19 per cent. In 1933, during the depth of the depression, the percentages changed significantly to about 82 per cent, 15 per cent, and 3 per cent respectively. The pattern of 1939, the last pre-war year, returned approximately to that of 1928; 69 per cent, 13 per cent, and 16 per cent. The tremendous expansion in output during the war years was absorbed in large part by government expenditure for military purposes so that consumer spending in 1944 was responsible for only 53 per cent of total output, while government spending accounted for 43 per cent. Gross home investment was relatively small. By 1947, the pattern had again changed markedly. Reduced government spending was more than offset by increased consumer spending, which absorbed 66 per cent of the nation's output, and a phenomenally high level of investment, which accounted for 22 per cent - the highest percentage since 1926.

### Personal Income

Personal income is the sum of current receipts of income whether or not these receipts are earned. Thus, it includes salaries and wages, net income of unincorporated enterprise, interest, dividends and net rentals of persons, as well as transfer payments from governments such as family allowances, unemployment insurance benefits, and war service gratuities. Table 3 indicates that personal income was at its highest pre-war levels in 1928 and 1929, when it reached \$4,547 million and \$4,532 million respectively. It then began to drop reaching a low of \$2,758 million



in 1933, after which it moved steadily upward to \$4,291 million in 1939. Personal income increased rapidly during the war, and in 1947 it reached an all-time high of \$10,279 million.

Two things must be kept in mind, in interpreting these figures: First, their fluctuations must be related to the purchasing power of the dollar, - an increase in the price level lowers income in real terms while a decrease raises it. Second, the amount at the disposal of persons for spending and saving is not the whole of personal income but only that portion which remains after payment of direct taxes. This is called personal disposable income.

#### Disposition of Personal Income

Personal direct taxes were approximately one per cent of personal income in the years 1926 to 1928. This percentage increased during the thirties and reached a high of 9 per cent during the war years 1943 to 1945. It declined slightly to 8 per cent in the years 1946 and 1947.

In 1928, 93 per cent of personal income was spent and 6 per cent was saved. In 1930, 95 per cent of personal income was spent and only 3 per cent was saved. During the following four years more was spent than was available out of current income after payment of direct taxes. This indicates that, for the economy as a whole, people had to supplement their current incomes by liquidation of assets or by borrowing. In the year 1933 negative saving reached its height - consumer expenditure plus payment of direct taxes exceeded personal income by approximately 6 per cent. In 1935 saving again became positive, but not until 1939 did it exceed the level of 1928. During the war, as a result of a shortage of goods, coupled with intensive government campaigns for saving, the percentage of current income saved rose rapidly to a high of 20 per cent in the years 1943 and 1944. Thereafter it dropped sharply, and in 1947 the percentage of personal income saved approximated that of 1928.

## C A N A D A

Table 1

## NET NATIONAL INCOME AT FACTOR COST AND GROSS NATIONAL PRODUCT AT MARKET PRICES

(Millions of Dollars)

Year	(1) Salaries, Wages, and Supplementary Labour Income	(2) Military Pay and Allowances	(3) Investment Income	(4) Net Income of Agriculture and Other Unincorporated Business	(5) Net National Income at Factor Cost (1) + (2) + (3) + (4)
1926	2,299	7	602	1,170	4,078
1927	2,465	7	663	1,156	4,291
1928	2,658	7	839	1,246	4,750
1929	2,839	8	814	1,028	4,689
1930	2,750	8	592	840	4,190
1931	2,386	8	327	540	3,261
1932	1,971	8	201	402	2,582
1933	1,791	8	233	355	2,387
1934	1,969	8	379	464	2,820
1935	2,093	9	451	564	3,117
1936	2,221	9	565	651	3,446
1937	2,494	9	758	756	4,017
1938	2,506	9	681	790	3,986
1939	2,583	32	783	891	4,289
1940	2,944	193	1,127	991	5,255
1941	3,586	386	1,487	1,135	6,594
1942	4,251	641	1,737	1,753	8,382
1943	4,746	910	1,778	1,659	9,093
1944	4,908	1,068	1,774	1,962	9,712
1945	4,915	1,117	1,918	1,822	9,772
1946	5,322	340	1,949	2,154	9,765
1947 <sup>*</sup>	6,235	83	2,309	2,354	10,981

<sup>\*</sup>Revised Preliminary



# C A N A D A

## Table 1

NET NATIONAL INCOME AT FACTOR COST AND GROSS NATIONAL PRODUCT AT MARKET PRICES

(Millions of Dollars)

(6) Indirect Taxes less Subsidies	(7) Depreciation Allowances and Similar Business Costs	(8) Residual Error of Estimate	(9) Gross National Product at Market Prices (5) + (6) + (7) + (8)	Year
612	561	- 55	5,196	1926
629	593	- 66	5,447	1927
677	647	- 89	5,985	1928
674	677	- 84	5,956	1929
594	656	- 92	5,348	1930
585	587	+ 47	4,480	1931
566	522	+ 48	3,718	1932
566	500	+ 15	3,468	1933
585	502	+ 55	3,962	1934
596	502	+ 70	4,285	1935
656	526	+ 16	4,644	1936
713	557	- 8	5,279	1937
637	560	- 18	5,165	1938
737	582	- 10	5,598	1939
837	655	+ 25	6,772	1940
1,056	751	+ 33	8,434	1941
1,073	883	+169	10,507	1942
1,126	912	+166	11,297	1943
1,123	863	+189	11,887	1944
1,005	785	+170	11,732	1945
1,261	846	- 9	11,863	1946
1,572	928	-106	13,375	1947*

### FOOTNOTE:

Column 7 includes an estimate of capital outlay charged to current account which has also been included with column 4, in Table 2.

\* - Revised Preliminary



## C A N A D A

Table 2

## GROSS NATIONAL EXPENDITURE AT MARKET PRICES

(Millions of Dollars)

Year	(1) Personal Expendi- ture on Consumer Goods and Services	(2) Government Expenditure Mutual Aid, UNRRA, and Military Relief	(3) Other	(4) Gross Home Investment Plant, Equipment and Housing	(5) Inven- tories
1926	3,654	-	523	681	154
1927	3,885	-	567	774	166
1928	4,196	-	589	940	206
1929	4,383	-	686	1,107	10
1930	4,091	-	765	916	-177
1931	3,594	-	735	610	-237
1932	3,066	-	640	322	-166
1933	2,848	-	521	221	-105
1934	3,030	-	572	296	49
1935	3,209	-	611	360	49
1936	3,420	-	594	446	- 45
1937	3,733	-	650	633	74
1938	3,770	-	695	576	6
1939	3,861	-	724	554	327
1940	4,379	-	1,156	713	371
1941	5,014	-	1,750	995	217
1942	5,547	1,002	2,815	931	335
1943	5,860	518	3,753	828	- 40
1944	6,300	960	4,115	756	- 82
1945	6,945	858	2,852	865	-300
1946	7,913	97	1,731	1,321	467
1947 *	8,888	38	1,443	2,042	842

## FOOTNOTES:

Column 4 - See footnote, Column 7, Table 1.

Column 5 - Includes grain held by the Canadian Wheat Board

\* - Revised Preliminary



# C A N A D A

## Table 2

### GROSS NATIONAL EXPENDITURE AT MARKET PRICES

(Millions of Dollars)

(6) Exports of Goods and Services	(7) Imports of Goods and Services	(8) Residual Error of Estimate	(9) Gross National Expenditure at Market Prices (1)+(2)+(3)+(4)+ (5)+(6)+(7)+(8)	Year
1,650	-1,522	+56	5,196	1926
1,618	-1,629	+66	5,447	1927
1,773	-1,808	+89	5,985	1928
1,632	-1,945	+83	5,956	1929
1,286	-1,625	+92	5,348	1930
967	-1,142	-47	4,480	1931
804	- 901	-47	3,718	1932
826	- 828	-15	3,468	1933
1,018	- 948	-55	3,962	1934
1,143	-1,017	-70	4,285	1935
1,428	-1,183	-16	4,644	1936
1,591	-1,409	+ 7	5,279	1937
1,356	-1,257	+19	5,165	1938
1,451	-1,328	+ 9	5,598	1939
1,805	-1,626	-26	6,772	1940
2,458	-1,967	-33	8,434	1941
2,322	-2,275	-170	10,507	1942
3,403	-2,858	-167	11,297	1943
3,566	-3,539	-189	11,887	1944
3,576	-2,893	-171	11,732	1945
3,197	-2,871	+ 8	11,863	1946
3,616	-3,599	+105	13,375	1947 *

#### FOOTNOTES:

Column 6 - Excludes Mutual Aid, UNRRA, and Military Relief.

Columns 6 & 7 - Minor adjustments have been made to the figures of current receipts and payments shown on page 21 of The Canadian Balance of International Payments, Dominion Bureau of Statistics, 1948, to achieve consistency with other component series.

\* Revised Preliminary



## C A N A D A

Table 3

## PERSONAL INCOME

(Millions of Dollars)

Year	(1) Salaries, Wages, and Supplementary Labour Income	(2) Deduct: Employer and Employee Contributions to Social Insurance and Government Pension Funds	(3) Military Pay and Allowances
1926	2,299	- 16	7
1927	2,465	- 18	7
1928	2,658	- 20	7
1929	2,839	- 25	8
1930	2,750	- 26	8
1931	2,386	- 23	8
1932	1,971	- 21	8
1933	1,791	- 20	8
1934	1,969	- 21	8
1935	2,093	- 22	9
1936	2,221	- 25	9
1937	2,494	- 29	9
1938	2,506	- 32	9
1939	2,583	- 34	32
1940	2,944	- 37	193
1941	3,586	- 68	386
1942	4,251	-110	641
1943	4,746	-124	910
1944	4,908	-132	1,068
1945	4,915	-135	1,117
1946	5,322	-147	340
1947*	6,235	-166	83

\* Revised Preliminary



## C A N A D A

Table 3

## PERSONAL INCOME

(Millions of Dollars)

(4) Net Income of Agriculture and Other Unincorporated Business	(5) Interest, Dividends and Net Rental Income of Persons	(6) Transfer Payments from Government to Persons	(7) Personal Income (1) + (2) + (3) + (4) + (5) + (6)	Year
1,170	486	77	4,023	1926
1,156	508	84	4,202	1927
1,246	564	92	4,547	1928
1,028	584	98	4,532	1929
840	595	121	4,288	1930
540	559	155	3,635	1931
402	460	170	2,990	1932
355	428	196	2,758	1933
464	416	230	3,066	1934
564	437	241	3,322	1935
651	435	248	3,539	1936
756	489	281	4,000	1937
790	525	262	4,060	1938
891	570	249	4,291	1939
991	611	224	4,926	1940
1,135	637	197	5,873	1941
1,753	715	226	7,476	1942
1,659	757	216	8,164	1943
1,962	806	263	8,875	1944
1,822	847	552	9,118	1945
2,154	888	1,113	9,670	1946
2,354	949	824	10,279	1947*

FOOTNOTES:

Column 5 - Includes charitable donations of corporations.

Column 6 - Excludes interest on government debt not incurred to finance existing real assets, since this is included in column 5 above.

\*-Revised Preliminary



C A N A D A

Table 4

DISPOSITION OF PERSONAL INCOME  
(Millions of Dollars)

Year	(1)	(2)	(3)	(4)	(5)
	Income Taxes	Personal Succession Duties	Direct Taxes Miscellaneous	Total (1)+(2)+(3)	Personal Expenditure on Consumer Goods and Services
1926	23	16	15	54	3,654
1927	29	17	15	61	3,885
1928	30	12	18	60	4,196
1929	33	16	19	68	4,383
1930	33	21	17	71	4,091
1931	32	15	16	63	3,594
1932	35	11	17	63	3,066
1933	38	13	16	67	2,848
1934	34	12	17	63	3,030
1935	42	20	18	80	3,209
1936	49	24	20	93	3,420
1937	55	36	21	112	3,733
1938	62	33	17	112	3,770
1939	61	28	21	110	3,861
1940	91	22	23	136	4,379
1941	239	30	21	290	5,014
1942	433	37	24	494	5,547
1943	631	38	28	697	5,860
1944	772	40	25	837	6,300
1945	733	47	25	805	6,945
1946	711	54	31	796	7,913
1947 <sup>A</sup>	694	61	31	786	8,888

<sup>A</sup>-Revised Preliminary



# C A N A D A

## Table 4

### DISPOSITION OF PERSONAL INCOME

(Millions of Dollars)

(6)	(7)	(8)	(9)	
Net Change in	Personal Saving		Personal	Year
Farm Inventories	Other	Total Personal Saving	Income	
		(6)+(7)	(4)+(5)+(8)	
66	249	315	4,023	1926
51	205	256	4,202	1927
5	286	291	4,547	1928
-144	225	81	4,532	1929
66	60	126	4,288	1930
- 1	- 21	-22	3,635	1931
20	-159	-139	2,990	1932
- 29	-128	-157	2,758	1933
- 12	- 15	- 27	3,066	1934
13	20	33	3,322	1935
- 45	71	26	3,539	1936
- 22	177	155	4,000	1937
36	142	178	4,060	1938
60	260	320	4,291	1939
80	331	411	4,926	1940
- 58	627	569	5,873	1941
368	1,067	1,435	7,476	1942
- 62	1,669	1,607	8,164	1943
-124	1,862	1,738	8,875	1944
-238	1,606	1,368	9,118	1945
- 41	1,002	961	9,670	1946
-100	705	605	10,279	1947*

#### FOOTNOTE:

Column 8 .. Personal saving is estimated residually by deducting personal direct taxes and personal expenditure on goods and services from total personal income in Table 3.

\*-Revised Preliminary



## C A N A D A

Table 5

## NET INCOME OF AGRICULTURE AND OTHER UNINCORPORATED BUSINESS

(Millions of Dollars)

Year	(1) Net Income of Farm Operators from Current Farm Production	(2) Net Income of Other Unincorporated Business	(3) Total Net Income of Unincorporated Business (1) + (2)
1926	691	479	1,170
1927	640	516	1,156
1928	693	553	1,246
1929	443	585	1,028
1930	359	481	840
1931	146	394	540
1932	108	294	402
1933	98	257	355
1934	190	274	464
1935	238	326	564
1936	273	378	651
1937	326	430	756
1938	371	419	790
1939	461	430	891
1940	508	483	991
1941	548	587	1,135
1942	1,089	664	1,753
1943	969	690	1,659
1944	1,213	749	1,962
1945	971	851	1,822
1946	1,130	1,024	2,154
1947*	1,235	1,119	2,354

FOOTNOTE:

Column 1 - This series is obtained by deducting net rents on owner-occupied houses, and net transfers under the Prairie Farm Assistance Act and transfers under the Prairie Farm Income Plan from the figures of "Net Income of Farm Operators from Farming Operations", as published by the Agricultural Division, Dominion Bureau of Statistics.

\*-Revised Preliminary



## APPENDIX

### Notes on Sources and Methods

#### Salaries, Wages, and Supplementary Labour Income

Labour income includes all salaries, wages, and supplementary labour income received by Canadian residents. Salaries and wages include bonuses and commissions and are reckoned before deduction of income tax, employee contributions to pension funds, and social security schemes. Supplementary labour income consists of employers' contributions, in cash or in kind, that are regarded as payment for the employees' services, (e.g. employer contributions to pensions, living allowances, etc.).

Separate estimates are made for each industrial group. In manufacturing, mining, electric power, railways, telephones, telegraph, street railways, finance, Dominion and Provincial governments, wages and salaries for the entire period are based on annual surveys made by the Bureau, and on the public accounts and other annual publications of the Dominion and Provincial governments. These sources are also used for estimating employers' contributions to workmen's compensation funds and the contributions to employees' pension funds by governments, insurance companies and railway companies.

Salaries and wages in forestry are based on annual surveys for the whole period. In construction, hospitals, education, and road transport, the figures from 1938 (in some cases 1941) to 1946 are based on annual surveys. The figures for earlier years are projected back on appropriate series adjusted to benchmarks based on the Population Census of 1931 and of 1941.

Estimates for most of the remaining industries are based on the Census of Merchandising and Services, the Agricultural Census and the Census of Population of 1931 and of 1941. The figures are projected to other years on the trend of suitable time series such as employment and wage rates.

In most cases better series for projection are available for the years after 1941 than for the earlier years, since monthly payroll statistics covering samples of establishments in a wide range of industries were introduced in that year and a number of special surveys have been made in later years.

Where annual surveys are used, figures for 1947 are projected from 1946 on monthly indexes of payrolls and related series.

#### Military Pay and Allowances

These are based on data obtained from the Dominion public accounts and the Department of National Defence. They include estimates for food and clothing supplied in kind.



Investment Income

Principal items in this category are:

- a) Corporation profits, net of losses;
- b) Bond and deposit interest, and dividends and interest from abroad, received by individuals in Canada;
- c) Rents and mortgage interest received by individuals;
- d) Investment income by life insurance companies, accruing to policyholders;
- e) Investment income of governments;
- f) Withholding taxes.

For the years 1944, 1945 and 1946 estimates of corporation profits and losses are based on data tabulated by the Department of National Revenue. The Bank of Canada's sample of corporate returns has been used to make the 1947 preliminary estimate. For years prior to 1944 the profit figures are based on tax liabilities and estimated average tax rates, supplied by the Department of National Revenue. Projection of losses for years prior to 1944 is based on the inverse trend of profits. Since corporate tax returns report earnings by fiscal years, the figures have been adjusted to a calendar year basis. An estimate of depletion allowances, based on a special sample compiled by the Department of National Revenue, has been added back to profits.

Bond interest received by individuals is based on estimates made by the Rowell-Sirois Commission and by the National War Finance Committee. It was brought up-to-date with information supplied by the Bank of Canada. For 1943 and subsequent years, the figures of interest on deposits paid to individuals by chartered banks are based on reports of total deposit interest. The figures are projected back to 1926 on the basis of interest rates and deposits. An estimate of bank services to individual depositors, for which no specific charge is made, has been added. Deposit interest paid by loan and trust companies and saving banks is estimated from annual reports.

Rents, whether paid by tenants or imputed as paid by owner-occupiers, are obtained by calculating gross rents and deducting expenses. Residential non-farm gross rents are based on the number of dwellings in urban and rural non-farm areas, estimated for 1926 to 1947 by the Department of Reconstruction, and on the average rent paid. Non-residential non-farm rents are based on various published reports and Bureau questionnaires. Farm rents are estimated by the Agricultural Division on the basis of the 1941 Census and projected back to 1926 on data received regularly by the Division. An estimate of rents received by corporations, based on information obtained from the Department of National Revenue, is deducted. The estimate of expenses is based on the 1941 Housing Census and on data on real estate taxes, repairs and maintenance, mortgage interest and fire insurance premiums obtained from published reports and other sources. Depreciation is arbitrarily calculated as a



percentage of gross rents. Expenses in connection with farm rents are estimated separately.

Mortgage interest received by individuals is obtained by applying an average rate of interest to an estimate of average holdings of individuals. Investment income of life insurance companies and similar bodies are derived from reports filed with the Dominion and provincial governments. Investment income of governments is based on the public accounts and various reports. Withholding taxes are compiled from the Dominion public accounts and adjusted to calendar years.

Adjustments are made to include the interest on only that portion of the Government debt that is represented by existing real assets.

#### Net Income of Agriculture and Other Unincorporated Business

For the years 1938 to 1947 net income of agriculture is estimated by making appropriate adjustments to the figures of Net Income of Farm Operators from Farming Operations, as published by the Agricultural Division. For the years prior to 1938 the estimates are based on the figures of farm cash income published by the Agricultural Division, on data compiled by the Rowell-Sirois Commission, and on the study of Public Investment and Capital Formation, prepared by the Department of Reconstruction. Estimates of income earned in the other primary industries - fishing, logging and trapping - are based on Bureau reports.

New tabulations of basic data by the Bureau and the Department of National Revenue for 1946 have resulted in revisions of net income in manufacturing, construction, repair services, transportation and communication, and finance. The estimates for the preceding years have been projected from this base on appropriate indexes. Net income in retail trade, for recent years based on surveys by the Merchandising and Services Branch, is projected to the earlier years on the Rowell-Sirois estimates. The 1941 Census of Merchandising and the Population Census were the basis for estimating net income in wholesale trade; projection to other years is based on an index of wholesale sales and estimates prepared by the Rowell-Sirois Commission. Net income from independent professional practice is based on special Bureau surveys made in recent years, and on personal income tax data tabulated by the Department of National Revenue. They are projected to the earlier years on the basis of data from the Rowell-Sirois Commission and the Department of National Revenue. Net income earned in all other service establishments, personal recreational services and miscellaneous business services, is estimated for 1946 on the basis of the Labour Force Survey and other data and projected to other years on appropriate indexes.

#### Indirect Taxes less Subsidies

For the years 1926-1937 this series is based on public finance statistics prepared for the Rowell-Sirois Commission supplemented by materials from the public accounts. For the period 1938 to date, the series is based on an analysis of public accounts and related government reports.

#### Depreciation Allowances and Similar Business Costs

Estimates of depreciation for non-taxable corporations, such as the



Canadian National Railways, are compiled from published reports. From 1944 on, the estimates for taxable companies are based on tabulations of the Department of National Revenue. For unincorporated business the Census of Industry and Merchandising and the decennial Census of Agriculture are used; these are also the main sources for both taxable companies and unincorporated business for 1941 to 1944. The Bank of Canada sample of corporate returns is used to project these figures back to 1938. For years prior to 1938 the estimates are those of the Business Statistics Branch, D.B.S. (see the Monthly Review of Business Statistics, April 1943). Broadly speaking, these were obtained by applying estimated depreciation rates to fixed capital values tabulated by the Census of Industry. Losses by fire and accidental damage to business and residential property, based on reports of the Superintendent of Insurance, are included with similar business costs. The latter also includes an estimate of capital expenditure charged to current account.

### Personal Expenditure on Consumer Goods and Services

Personal expenditure is divided into four main parts:

- 1) Expenditure on goods;
- 2) Expenditure on services;
- 3) Consumption out of income in kind;
- 4) Adjustment for expenditure of Canadians abroad and of foreigners in Canada.

#### Expenditure on goods

Personal expenditure on goods is based largely on retail sales, as reported in the 1930 and 1941 Census of Merchandising. Fuel consumption is projected from 1930 and 1941 on indexes of domestic consumption of the main types of fuel. Prior to 1929 and from 1932 to 1936 the estimates are based on relatively incomplete data. Expenditure on magazines, stationery, newspapers and books are projected on the trend of non-advertising revenue in the printing and publishing trades.

Food and meals, drugs and cosmetics, clothing, furniture, house furnishings, hardware and jewellery are projected from 1930 to 1947 on the indexes of annual sales. Prior to 1930 the expenditure on drugs and cosmetics, and jewellery is projected on the trend of production. The other groups are projected on indexes of sales specially prepared by the Merchandising Branch.

Alcoholic beverages are projected on the trend of retail sales of beer, wines and liquor, as reported annually by the Provincial Liquor Commissions. New cars are projected on the trend of retail sales of new automobiles; automotive accessories on the value of wholesale sales, and petroleum products on appropriate indexes, such as, sales of taxable gasoline. The sales of cars and accessories, and petroleum products are reduced to exclude purchases by business.

Expenditure on tobacco products from 1926 to the present is estimated directly from the value of tobacco products released for consumption, adjusted for



mark-up.

The total value of personal expenditure on goods is adjusted upward to allow for underestimation in the census reports. It is also adjusted to exclude wholesale sales through retail outlets. Retail sales taxes paid separately by the purchaser are added. An adjustment for the value of retail sales through new outlets is included for the years 1946 and 1947, based on the results of the labour force surveys of 1945, 1946 and 1947.

#### Expenditure on services

For most services expenditure is estimated from total revenue reported annually, adjusted as far as possible for services rendered to business. These include transport (except taxicabs), communications, electricity and gas, laundry, dry cleaning and motion picture theatres. Repair services, taxis, funeral and burial services are based on the 1930 and 1941 Merchandising Census and projected on appropriate indexes. Expenditure on professional services is assumed to equal the gross revenue of doctors, dentists and nurses from independent practice, and half the gross revenue of lawyers. The figures are consistent with the estimates of net income. The services of private non-commercial institutions - hospitals, universities, charities - are measured by their expenses, compiled from various reports. Gross paid rents are included with services and are consistent with the estimates of the income side of the accounts.

#### Consumption out of income in kind

Personal expenditure includes implied expenditure out of income in kind. The main items are: farm produce consumed on the farm, board and living allowances, food and clothing issued to the armed services, and gross imputed rents of owner-occupied houses.

#### Net expenditure abroad

Net expenditure abroad is included to account for expenditure abroad out of Canadian incomes and to exclude expenditure in Canada out of non-Canadian incomes. The main categories are tourist expenditure and private remittances and gifts. For the war years allowance has also been made for the expenditure of foreign troops in Canada, and Canadian servicemen abroad.

#### Government Expenditure

For the years 1926-1937 the series is based mainly on analysis of the statistics of public finance prepared for the Rowell-Sirois Commission. For the period 1938 to date the series is based on analysis of Dominion and Provincial public accounts and related financial statements, reports of Provincial Departments of Municipal Affairs and individual financial statements of municipalities. For the Dominion, the figures are converted to a calendar year basis by using the monthly statement of receipts and disbursements published by the Comptroller of the Treasury. Municipal accounts are almost invariably on a calendar year basis; the provincial figures are included on a fiscal year basis since no information is available for their conversion.

Gross Home InvestmentPlant, Equipment and Housing

Gross investment in durable assets, in Canada, of private business and semi-autonomous government enterprises are included under this heading. The series also includes expenditure by private persons on new residential construction.

For the years 1941 to 1947 the estimates of investment in plant and equipment in Canadian business are obtained from annual reports submitted to the Bureau by a large number of firms. Estimates of housing construction are obtained by multiplying the number of new units completed, by average contract prices. These prices are estimated from special surveys. Independent estimates, made by combining data on construction with information on the value of machinery and equipment available for domestic use, are used as a check on the estimates of investment. For the earlier years, the figures of private investment and investment of publicly-owned public utilities are taken from Public Investment and Capital Formation (Department of Reconstruction). Investment of the National Harbours Board and Harbour Commissions have been compiled from reports of Department of Marine and Fisheries for 1927-1938 and the National Harbours Board for 1937. Relief projects in 1934-1937 are included in Government Expenditure and are, therefore, excluded from this series.

Inventories

Net investment in inventories is the difference between current production held over to the next year, and the previous years' stocks sold in the current year. Thus in effect the inventory adjustment to gross national expenditure is to add current production held over (since these goods are not accounted for elsewhere) and to deduct past years' stocks sold currently (since they do not represent current production).

Investment in inventories in manufacturing is estimated from annual and monthly data collected by the Census of Industry. Complete information on retail and wholesale inventories for 1930 and 1941 is available from the Census of Merchandising. Estimates are made for other years on the basis of data collected by the Census of Industry, supplemented, in recent years, by tabulations of corporation inventories made by the Department of National Revenue.

Investment in inventories in mining, logging, construction, electric power, transportation and communication, and service is based on various sources, including special Bureau reports, published reports (such as that of the Hydro Electric Power Commission of Ontario), tabulations of the Department of National Revenue, and statistics summarized in the Financial Post Survey of Corporate Securities.

Changes in inventories of grain and livestock held on farms are estimated by the Agricultural Statistics Division from sample data collected twice a year. Changes of grain held in commercial channels, including holdings of the Canadian Wheat Board, are calculated separately from statistics of visible supply and market prices published regularly in reports of the Agricultural Division.

Investment in farm grain and livestock, and grain in commercial channels,



is estimated by applying average annual or quarterly prices to the corresponding change in volume of stocks. This treatment is preferable to differencing the year-end values, since it eliminates profits arising purely from fluctuating price levels; it involves a corresponding adjustment on the income side. Information to carry out this treatment in other groups is not yet available.

### Exports and Imports of Goods and Services

These figures are taken from The Canadian Balance of International Payments, Dominion Bureau of Statistics, 1948. Minor adjustments have been made to the published figures to fit them into the national accounts presentation.

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